

**REMARKS****I. Overview**

Claims 1-21 are pending in the application. In the Office Action dated February 4, 2005 ("Office Action"), claims 1-21 were rejected. Claims 16-21 have been cancelled without prejudice. Applicant expressly reserves the right to prosecute these claims in a later application. Claim 1 has been amended to correct an error in form. The issues in the Office Action are:

- Claims 16-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.
- Claims 1-21 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.
- Claims 16-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Cannon et al.* (U.S. Patent No. 4,816,767, hereinafter *Cannon*).
- Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tarczy-Hornoch et al.* (U.S. Patent No. 4,630,228, hereinafter *Tarczy*) in view of *Gumm* (U.S. Patent No. 6,437,578).
- Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Cannon* in view of *Kitayoshi* (U.S. Patent No. 5,656,932).
- Claims 2-15 are indicated as allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, and to include all of the limitations of the base claim and any intervening claims.

**II. Claim Rejection under 35 U.S.C. § 112, second paragraph**

Claims 16-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Claims 16-21 have been cancelled without prejudice.

Applicant notes that, in paragraph 9 of the Office Action, claims 2-15 have been indicated as rejected under 35 U.S.C. § 112, second paragraph. The Examiner has failed to provide any support for such a rejection as required by the M.P.E.P. Specifically, the Examiner is directed that “[i]n accordance with the patent statute, ‘Whenever, on examination, any claim for a patent is rejected, or any objection . . . made’, notification of the reasons for rejection and/or objection together with such information and references as may be useful in judging the propriety of continuing the prosecution (35 U.S.C. § 132) should be given.” *See* M.P.E.P. § 707. Applicants therefore request that the Examiner set forth the grounds for rejection with respect to claims 2-15 in order that Applicants may have a full and fair opportunity to explore the patentability of this claim.

### III. Claim Rejections under 35 U.S.C. § 101

Claims 1-21 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Applicant has cancelled claims 16-21 without prejudice. Regarding remaining claims 1-15, the Examiner states that these “recite no clearly defined practical application of the claimed method or do not draw a conclusion as to the final end result of configuring of a vector network analyzer (VNA) being directed toward a practical application.” *See* Office Action, page 2, paragraph 3. 35 U.S.C. § 101 recites that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor....” Applicant can find no requirement of 35 U.S.C. § 101 that requires a claim recite a “clearly defined practical application.”

The M.P.E.P. provides further guidance for interpreting the requirements of 35 U.S.C. § 101. M.P.E.P. § 2107.01 states that “to satisfy the requirements of 35 U.S.C. § 101, an applicant must claim an invention that is statutory subject matter and must show that the claimed invention is “useful” for some purpose either explicitly or implicitly.” Here, claims 1-15 recite at least a useful process—“using a vector network analyzer (VNA) for coordinated Voltage Standing-Wave Ratio (VSWR) and Time Domain Reflectometry (TDR) measurement....” Claim 1 also comprises a limitation that suggests a use for such a process—“configuring said VNA for identifying discontinuities correlated to a VSWR lobe.” Accordingly, claim 1 is directed to subject matter that comprises a useful process, which is expressly patentable under 35 U.S.C. § 101.

The Examiner also “submits that the claimed method merely manipulates an abstract idea without limitation to a practical application.” *See* Office Action, page 2, paragraph 3. Applicant respectfully traverses the Examiner’s submission that the claimed method “merely manipulates an abstract idea without limitation to a practical application.” While abstract ideas may not be patentable, the subject matter of claims 1-15 is a process that comprises using a vector network analyzer, which Applicant respectfully asserts is not abstract.

For the reasons shown above, Applicant respectfully asserts that the Examiner has not provided a proper rejection of claims 1-15 under 35 U.S.C. § 101. Applicant requests that the rejection of these claims be withdrawn and claims 1-15 passed to allowance.

### III. Claim Rejections under 35 U.S.C. § 102

Claims 16-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Cannon et al.* (U.S. Patent No. 4,816,767, hereinafter *Cannon*). Claims 16-21 have been cancelled without prejudice.

### IV. Claim Rejections under 35 U.S.C. § 103(a)

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tarczy-Hornoch et al.* (U.S. Patent No. 4,630,228, hereinafter *Tarczy*) in view of *Gumm* (U.S. Patent No. 6,437,578). Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Cannon* in view of *Kitayoshi* (U.S. Patent No. 5,656,932). Claim 21 has been cancelled by Applicant without prejudice.

Applicant notes that the Examiner has referred to *Milroy et al.* in the rejection of claim 1 under *Tarczy* in view of *Gumm*. *See* Office Action, page 4, paragraph 7. However, this appears to be a typographic error. Applicant therefore responds to the claim 1 rejection as being based on obviousness in view of *Tarczy* in view of *Gumm*.

To establish a prima facie case of obviousness, three basic criteria must be met. *See* M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must

teach or suggest all the claim limitations. Without conceding the first or second criteria, Applicant respectfully asserts that the references do not teach or suggest all the claim limitations.

Claim 1 recites “[a] method of using a vector network analyzer (VNA) for coordinated Voltage Standing-Wave Ratio (VSWR) and Time Domain Reflectometry (TDR) measurement, said method comprising configuring said VNA for identifying discontinuities correlated to a VSWR lobe.” *Tarczy* teaches a transmission line analyzer “comprising frequency domain reflectometer means.” See col. 1, line 65. The claims of *Tarczy* are also directed to frequency domain reflectometer means. See col. 12, lines 42, 62; col. 13, line 13; col. 14, line 7. *Tarczy* does not appear to teach or suggest identifying discontinuities correlated to a VSWR lobe. Accordingly, *Tarczy* does not teach or suggest at least the claim 1 limitation of “identifying discontinuities correlated to a VSWR lobe.”

*Gumm* is not relied upon as curing the deficiencies of *Tarczy* with respect to claim 1. Accordingly, *Tarczy* in view of *Gumm* does not teach or suggest at least the claim 1 limitation of “identifying discontinuities correlated to a VSWR lobe.”

Because the cited combination of references does not teach or suggest all limitations of claim 1, claim 1 is not obvious over the cited references. Applicant respectfully requests that the Examiner withdraw the rejection of record and pass claim 1 to allowance.

#### V. Claims Indicated as Allowable if Rewritten

Claims 2-15 are indicated as allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, and to include all of the limitations of the base claim and any intervening claims. Applicant thanks the Examiner for this indication. Applicant respectfully asserts that claim 1-15 as written are allowable in their present form for the reasons set forth above. Additionally, as described above under heading “Claim Rejection under 35 U.S.C. § 112, second paragraph,” the Examiner has provided no basis for a rejection of claims 2-15 under 35 U.S.C. § 112, second paragraph. Applicant respectfully requests that the Examiner state the basis of any rejection of these claims under 35 U.S.C. § 112, second paragraph.

VI. Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1078, under Order No. 10030466-1 from which the undersigned is authorized to draw.

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